Membrane oxygenator - with membranes made as corrugated porous material with silicone rubber coating.

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The membrane oxygenator has a body (1) and selective membranes (2) made of corrugated porous material, e.g. metal-ceramic with a silicone rubber coating.

Venous blood passes through connection (3) into collector (4) and is evenly distributed along the flat channels of each membrane (2) of the blood flow chambers (5). At the same time oxygen or air passes through connection (6) into collector (7) and through an aperture in seal (8) into gas chambers (9), washing over membranes (2). The oxygen is diffused into the blood, saturating it, and the excess carbon dioxide is removed from the blood into the gas stream, so the venous blood is converted into arterial blood which is collected in collectors (10) and passes from connections (11) to the patient. The air and carbon dioxide mixture passes through gas chambers (9) and seal (8) second aperture into collectors (12) and through connections (13) into the atmosphere. Bul.29/7.8.82